COOP'S TECHNOLOGY DIGEST

-A Timely Report on The World of Communications-

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COOP'S TECHNOLOGY DIGEST

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Driven by economics

At the end of the day (month, year) profitability does count - even in the never-never land of television broadcasting. This month's analysis focuses on what various broadcaster / programme providers are doing (or trying to do) to stem the tide of red ink and maintain a degree of independence from either regulators (TVNZ) or the banks (Austar et al). For viewers, those who pay money directly (Sky, Austar, Foxtel et al) or indirectly (ABC Australia, TVNZ) there are major changes looming on the programming availability horizon. First, to New Zealand's embattled national state telecaster TVNZ.

TVNZ may cut major sport cover. Television New Zealand's hold on major sports events - such as the Olympics, Commonwealth Games and Rugby World Cup - is under threat as it faces massive cost-cutting. The state broadcaster has discussed with the government the possibility of taxpayers funding future rights to the events. Press reports claim TVNZ must slash spending by $75 million over three years, $15m more than its target just one year ago. The cuts are to offset a decline in advertising revenue that has accelerated since September 11.

"*There is no magic about this*," TVNZ's outgoing chief executive Rick Ellis said. "*To keep your head above water, you either earn more money or you take more cost out, and the biggest cost in any television business is your programming. In future years we have to assess whether investing in sports rights gives an adequate return in terms of charter expectations. We have tended to end up being in the major event genre, so you are talking the Rugby World Cup, Winter Olympics, Summer Olympics, Commonwealth Games, the summer tennis and the golf. Sports rights have just become ridiculously priced.*"

The issue is one of many facing new chief executive Ian Fraser, who takes over in April. Others include: (1) A decline of 5 percent last year in TVNZ's total primetime audience. (2) A loss from TV2, the company's cash cow, of one in 10 viewers in the key peak-time advertising market. (3) The television charter which, with its increased local and minority programming, will have an unpredictable effect on ratings and revenue.

Broadcasting Minister Marian Hobbs said TVNZ had raised the issue of sports rights with her. "*What they have flagged is those sports are very expensive, they also attract advertisers. But if they are so expensive they distort expenditure . . . they would investigate with us as a government whether we would compensate*," she said. "*There is no answer to that as yet.*"

TVNZ has asked the government for a "modest sum" - thought to be up to $30m - to pay for the expense of the new charter. The money is in addition to cuts TVNZ must make of $15m from its budget this year, $20m next year and $40m the year after to stay profitable. Those figures are $15m higher than the $60m revealed in leaked TVNZ documents last year. The company's revenue is being eroded by competition and a global downturn in the advertising market.

TVNZ had achieved its $15m cuts this year and would post a small profit for television in its half-year results. About 25 people had been made redundant. But Ellis said finding savings in future years was going to be "*bloody difficult*". Sports rights was an area "*future management are going to have to reflect on*", he said. "*I'm not signalling in any way that we are about to walk away from sports but I'm giving that by way of an example.*" TVNZ has already lost the rights to the rugby and cricket seasons to Sky and TV3 but has retained one-off events. The Olympics and Rugby World Cup are believed to cost up to $20m each and lose money. The broadcaster has already secured rights to sports events up to 2004, including the next Olympics and Rugby World Cup. But questions hang over events after that, particularly if TVNZ's financial position deteriorates. A joint bid between Sky and TVNZ for the soccer World Cup is already in trouble because of the price. TVNZ argues that its ratings loss looks worse than it is because the channels have dropped from a record year in 2000.

But - is the problem entirely the result of declining programme ratings or have the ratings declined because of political meddling in the broadcaster's functions? Some are raising that as an issue:

Rugby boss questions TVNZ's charter. Rugby Union chairman Murray McCaw has questioned Television New Zealand's commitment to local programming in the wake of reports that it could stop televising sport. "*If TVNZ is going to be true to its charter, you would have to wonder how it can do that without having mainstream sport on TV*," Mr McCaw said. "*There is an issue there for the Government to contemplate.*"

TVNZ has confirmed that it would have to look at the cost of covering big sports events as it tries to trim about $75 million from its budget during the next three years. TVNZ has the rights to the Commonwealth Games in Manchester this year, the Rugby World Cup in Australia and New Zealand next year, it covers the international rugby sevens series, and has the rights to the 2004 Olympics in Athens. Other elite sports such as international cricket and rugby's Super 12 and tri-nations series are shown live on pay broadcaster Sky, with delayed and occasionally live coverage on free-to-air TV3. Sky has the rights to the Super 12 and tri-nations till the end of 2005.

The Government has introduced a broadcasting charter that requires TVNZ to increase its local and minority programming. But what sports are included in that is uncertain. TVNZ's outgoing chief executive, Rick Ellis, said that sport was becoming "*ridiculously priced*" and the costs of covering big events meant they often ran at a loss. A joint bid by TVNZ and Sky for the soccer World Cup in Korea and Japan later this year is in doubt because of the cost of the rights. TVNZ spokesman Glen Sowry said there would be no cuts to sport in the near future. Mr McCaw said sport was part of everyday life and TVNZ's programming should reflect that.

"*When you have a commercial organisation that decides it does not want to do something, there is very little you can do to change its mind. But I'm not sure if that's what the Government would have wanted when it put the charter in place, and you would have to wonder where the direction of TVNZ is going.*"

A spokesman for Broadcasting Minister Marian Hobbs said cutting local sports content was one of TVNZ's options but was something for TVNZ to consider, not the minister. "*The minister has said once the charter has been introduced there would be some funding for additional costs, but that was a matter for the budget.*" TVNZ has reportedly asked the Government for up to $30 million to cover the cost of the charter.

First we cut back on sport, then we reconfigure news. It's all about saving money. The report:

TVNZ links with Australian broadcaster . Transtasman ties have been established between Television New Zealand (TVNZ) and its state counterpart, the Australian Broadcasting Corporation (ABC). As well as access to Australian news and current affairs, and the ABC's 13 foreign bureaux, the alliance would see an Australian network station correspondent based at TVNZ headquarters in Auckland. TVNZ's Australian correspondent would move in with the ABC in Sydney, and its London-based Europe correspondent would shift into the ABC bureau, saving TVNZ money in rent on its office at Westminster. TVNZ formerly used Channel Nine as its primary Australian news source and based its reporter at the network. A recent alliance between Nine and Prime NZ played a part in seeking the deal with the ABC, said Heaton Dyer, TVNZ head of news and current affairs. "*The ABC is the biggest news organisation in Australia . . . so it just makes sense for them to be our partner.*" Mr Dyer said he had also done a deal for news from America's major NBC network and TVNZ was planning to send a correspondent to Washington DC. Inside TVNZ news, Mr Dyer has scrapped the positions of editor of daily news and editor of current affairs. Trish Carter has been appointed as deputy to Mr Dyer, with overall responsibility for One News and Holmes. Melanie Jones has been appointed executive producer of One News. Former Holmes executive producer Hunter Wells has moved to the current affairs show, Sunday. Mr Dyer takes responsibility for weekly current affairs programmes, Business and Breakfast.

Prime's new directive. Goodbye Last of the Summer Wine, hello Who Wants to be a Millionaire? Prime TV made clear its change of direction on Friday February 15 at a swanky Auckland function on the Waterfront. In the process, Prime looks set to lose the intellectual programming high-ground it has stolen from TV ONE in recent years with its documentary and drama programming. Among the new offerings, which spring out of the channel's relationship with top-rating Australian network Channel Nine, are The Late Show with David Letterman, RPA, Water Rats, Burke's Backyard, Getaway and

Entertainment Tonight. Programmes which will remain from the old Prime line-up include the BBC Wild documentary strand and The Bill. The channel is focusing on TV ONE's target demographic of 25-54 year-olds, offering something of a mix between TV ONE and TV2's programming - as is evident by the fact that much of the programming has been screened on one of the TVNZ channels previously.

The goal for the 'new' Prime is to achieve a 10 percent audience share within the next year, with an eye on 13-15 percent. Whether this is realistic or not is a moot point - TV3, going into its thirteenth year on air, is sitting at around 20 percent in the 5+ demographic. What cannot be denied however is Prime's increased purchasing power - demonstrated in their contract with US distributors Paramount, which supplies Prime with the likes of Entertainment Tonight, and the new Star Trek series, Enterprise. It should be expected that Channel Nine will leverage similar deals as the relationship with Prime evolves - Survivor and Friends are two of Channel Nine's flagship shows, currently under contract to TV3 and TV2 respectively in New Zealand. On an interesting note, Prime is screening Channel Nine's Sunday programme when the new line-up launches on March 3 - two weeks before TV ONE launches its new flagship current affairs programme of the same name.

Meanwhile, New Zealand's latest (next) "national" television service, Maori TV, has run into launch difficulties. The service has been mandated by the current (Labour) government, and was scheduled for a June 2002 start date. The concept is to provide some number of daily hours of programming created by and for or for Maori speaking Kiwis. But how to carry the programming from the origination point to the nation? Option one: Commission BCL to create a national network using UHF channels reserved for Maori use, involving new BCL transmitters and retrofitting some number of mountain top sites with the required transmission equipment. Plus? It would provide work and new revenue for BCL but as that revenue will largely if not totally come from Government grants, it is "out of one pocket into the other pocket" based. Negatives? UHF works poorly in rugged (hilly, mountainous) terrain. Most of the Maori rural audience lives where there has never been UHF TV available - which means no existing base of installed UHF receiving antennas or UHF tuning TV sets (Maori viewers would be required to spend between $100 and $250 just to be equipped to receive a new UHF channel; a unlikely scenario for successful operation.) Option two: Place the Maori channel on Sky's digital TV service creating instant nation-wide coverage. Plus? Quick, could provide new sales boost to Sky sales in rural Maori areas. Negative? The majority of Maori rural homes are well below national averages for disposable income, could find even the installation fee ($99 currently) plus the monthly FTA (free to air) service package charges ($17.29 currently) difficult to budget. Option three: Place the Maori channel on Sky's digital bouquet but in a FTA mode (as TV One and TV2 plus Concert FM and National Radio currently are FTA). Plus? Maori viewers could acquire a Sky box and pay $17.29 per month for TV One, TV2, TV3, TV4, Trackside + Maori TV, or, purchase an "independent" satellite receiving system (initial cost around $500) and pay nothing per month for TV One, TV2, Concert, National Radio and Maori TV. Sky is providing these services FTA as a part of its ten year contract with TVNZ. The $500 could still be a financial hurdle of course as Sky's installation fee is $99 for most rural areas. Option four: Maori TV could "buy time" from one of the commercial broadcasters. The Maori TV creation committee was well down the road in negotiations with Prime TV to do just that when Nine Australia announced it had reached a commercial agreement with Prime for providing programming to Prime from Australia. Maori TV then went back to TV3/TV4 to restart negotiations concerning taking over some time slots from TV4. Those discussions continue but seem unlikely to be productive given recent changes in TV3 and 4 viewing habits (see story that follows concerning CanCom's return to profitability). Plus? Instant coverage but only as far as the TV4 coverage already exists. Rural areas (Gisborne, Kaitaia for example, bastions of Maori culture) do not have TV4 terrestrial coverage. Negative? Maori TV would be subject to changes in the commercial TV environment and not control their own delivery system long term. Option five: Place the Maori channel inside of the TVNZ "experimental" Optus B1 satellite package (available on any dish that also receives Sky). Plus? Instant national coverage but no more so than if the Maori TV elected to become a part of the Sky national digital package. Negative? TVNZ is totally uncertain how long it will continue to have this "experimental" service functioning although if Maori TV was "at home" here, that could have a solidifying positive effect on changing from an "experimental" to a "permanent" service. The press report:

The Maori television channel is unlikely to be on air before July. The Government wanted broadcasting to start in midyear, and the launch was widely expected to be on July 1. Maori Affairs Minister Parekura Horomia, revealing details of the channel last July, said it "*will be on air from June 2002*". But the chairman of the Maori Television Service board, Derek Fox, says it may not be on air until the second half of the year. He claims there was never a set starting date. The board, set up in October, has yet to appoint a chief executive or decide on a transmission platform. It has called for expressions of interest from programme makers and has paid for a constancy report on how it could run the channel, including programming and marketing. Mr Fox defended the board's decision to call for programming ideas before a chief executive or programming manager was appointed. He said the board had skilled television people who knew what would be good programming. The Maori broadcasting finance agency, Te Mangai Paho, has already commissioned programmes, including a $1.8 million series by former MP Tukoroirangi Morgan.

In releasing details of the service, Mr Horomia said the channel would be received by 70 per cent of the country on existing UHF frequencies. It could also be simulcast on a digital satellite service, he said. Mr Fox said the board was considering up to four transmission options and all involved substantial sums of money. "*There's some resourcing problems in terms of what it costs to get a platform up and running.*" The Government set aside $3.8 million for transmission and operational costs in 2001-2002, rising to $6 million a year in 2004-2005. If the service chose to broadcast from existing frequencies, it would have to start from scratch and invest in a studio and equipment, said Mr Fox. Sky television has offered a digital channel for transmission and wants to work with the service making programmes with Sky equipment. But Mr Fox said the Sky option was not a simple answer. People would have to pay for a set-top box and the service was required to reach as big an audience as possible. Mr Fox said the board had not been dragging its heels. It had developed a business plan, was close to appointing senior staff, and was working with the Government on legislation for the service.

Comment: Any plan that involves satellite and some form of subsidy for viewers will run the risk of misleading Maori viewers into believing the equipment they are being given (or having subsidised by Government) will do more than access Maori TV (plus perhaps a few other FTA services). This has led one commentator to predict, "If its is done as a FTA channel either inside Sky or in the TVNZ experimental service, the user would have to buy a cheap FTA receiver unless the Government supplied them. I can see what's coming then, '*This piece of useless junk the Government supplied us with can't get SKY sports.*' There will be a huge outcry over Maori viewers being flogged cheap nasty junk"

Whither goes TVNZ's experimental Optus B1 service? On December 1st, TVNZ formally announced its new Optus B1 (12.456Vt) free to air (FTA) distribution service carrying TV One and TV2. The two channel service reaches all homes where Sky now covers but does so using a different (TVNZ leased) transponder. The service has the bandwidth capacity to carry 8 to 10 TV service channels as well as an equal number of radio or data channels. The two channel service is the "residue" from the original mid-2001 plan whereby TelstraSaturn and TVNZ were to partner a joint FTA + pay-TV package in competition with Sky. That plan came apart as Saturn's finances failed leaving TVNZ with a pair of Optus B1 transponders. TelstraSaturn/Clear has used one of those transponders for a private link between Wellington and Christchurch and more recently, Sky NZ under an "arrangement" with Telstra/Clear has taken over ½ of that transponder with an option on the other half in 2003. Which leaves TVNZ with a full transponder, of which they use 1/32 - but only lightly. As CTD has previously reported, in December TVNZ was offering TV One, TV2 with teletext, subtitling and high resolution video on this 1/23 transponder at a time when Sky's version of TV One and TV2 was low resolution, no teletext, no subtitling. Sky has subsequently added high res video and subtitling, has no plans to add teletext.

Some thought they saw an opportunity to sell TVNZ satellite systems to individuals who were not anxious to become Sky customers and pay Sky $17.29 monthly for the FTA services. Peter Escher, a former seller of high power 900 MHz portable telephone systems, was one of those entrepreneurs. Escher located a Taiwan built (Winersat) receiver which provides for teletext and subtitle reception which he packages with a selection of home dish electronics. Escher began by contacting all of the TV retail outlets in North Island, later expanded to a 1,500 piece mailing that went to every firm in NZ that might be interested in handling a non-Sky free to air satellite system. In mid-February, Escher

took out a ($1500) half page advertisement in INL's TV GUIDE publication offering his system package for as little as NZ$399.

To date, fewer than 300 of the Winersat receivers have been imported, not all of those are sold. A tiny handful (fewer than ten) "installing dealers" have been set up - not a significant response considering the 1,500 pieces of mail he generated to potential dealers - and Escher who had hoped to sell only through "qualified installers" after generating sales leads with his advertising has fallen back to position two; selling directly to consumers. As you might expect, shipping a satellite dish, LNB, cable, receiver and attachments in a box to a remote South Island cattle or sheep station home is fraught with danger. The typical consumer with no satellite TV experience is going to have massive problems even unpacking the system.

In the interim Sky's digital carriage of TV One and TV2 in the FTA mode has been slightly expanded to include Concert FM, National, Wolf Radio also FTA. Escher is optimistic that Sky will also decrypt TV3, TV4, Prime and TAB. He originally programmed his Winersat receivers just for the TVNZ two-channel bouquet but then awoke to the fact that this bouquet may not be permanent and added (a software change - not a major effort) Sky's version of FTA as well. The same receiver also picks up an ABC (Australian) TV (and 3 radio) channel(s) provided the consumer has properly installed the dish system and the skies are clear (the Australian signal is not nearly as strong to NZ as the TVNZ and Sky services; clouds or rain shuts down the Australian reception quickly). Escher has talked about buying advertising time on TVNZ but so far nothing has happened there. Perhaps there is a reason for that as the following letter illustrates:

Thank you for your e-mail of 23 January concerning digital satellite transmissions by Television New Zealand (TVNZ).

In your e-mail you express concern that TVNZ may cease its present direct transmission of TV One and TV2 on the OPTUS B1 satellite. I am advised that TVNZ is running the direct transmissions as a technical trial, and is not promoting them on any other basis. The future of these transmissions will depend upon commercial decisions made by TVNZ, as it evaluates the best way to move further into the digital future. It is not my role as Minister to intervene in these decisions. Aside from TVNZ's direct satellite transmissions, TV One and TV2 are also being transmitted on the Sky network. I expect this arrangement between TVNZ and Sky to continue for the foreseeable future. Because TV One and TV2 are not encrypted, both Sky subscribers and other viewers with a suitable set top box can access these channels. With a suitable set top box TV One and TV2 are available in digital format and free-to-air. I understand that the cost of purchasing a suitable set top box (as opposed to leasing it from Sky) has decreased significantly in recent years.

I note that you are in the business of installing satellite receivers. It would seem appropriate for potential purchasers of satellite receivers to be made aware of the possibility of changes to TVNZ's direct satellite transmissions. It would also seem desirable for viewers to be given the flexibility to receive TV One and TV2 through Sky's network by pre-tuning the set top box appropriately.

Finally, I note your suggestion that the Government should take an active role in promoting free-to-air satellite television. Before making decisions on a range of issues associated with digital television, the Government is keen to hear the views of interested parties such as yourself. A recent discussion document on digital television that canvasses many of the relevant issues is available on the Ministry of Economic Development's web site, www.med.govt.nz. The closing date for submissions is 15 April 2002. I would encourage you to make a submission on your areas of interest.

Yours sincerely

Hon Marian L. Hobbs

Minister of Broadcasting

Comment: If Sky was showing any concern about the development of a competitive "free to air" market for non-Sky set-top box systems, they can stop their worrying. Escher may continue to sell a few systems per week, but as long as Sky is allowed to keep TV3, TV4, TAB and perhaps the new Maori service off of free to air satellite, and TVNZ does nothing but use its present transponder for distribution of TV One and TV2, little competitive is going to change in the present situation.

Sky and TVNZ go together to "innovate". SKY Television and Television New Zealand confirmed an agreement has been reached to broadcast the Innovate Conference to be held in Christchurch on 6-7th March 2002. The partnership, between two of New Zealand's major broadcasters, will see TVNZ providing a full two day programme to be broadcast live on both Channel 25 on Sky's digital

satellite service and on TVNZ's nzoom, one of New Zealand's top Internet sites. Richard Harman's Front Page Film and Television will play a key role during the broadcast, adopting a similar production approach to that used during Catching the Knowledge Wave, which was also broadcast live on Sky's satellite service. The production will include live coverage of all keynote speeches, live interviews with participants and delegates, continual conference updates and behind the scenes commentaries. Jim Anderton, Deputy Prime Minister and conference co-chair, says the partnership approach to the broadcasting of the conference is a reflection of what can be achieved when some lateral thinking is applied to challenges. "*The joint broadcasting agreement demonstrates that on occasions co-operation within a competitive framework can achieve innovative results for the general good*". TVNZ's Chief Executive, Rick Ellis also regards the co-operative approach as continuing a relationship that is already working effectively. "*The broadcasting of Parliament's question-time is conducted in a similar complementary environment, while the public reaction to TVNZ's 1 and 2 channel position on SKY's digital programme has also been very positive.*" SKY Television's Chief Executive Officer, John Fellet says, "*This is an excellent example of the public and private sectors working together to achieve a positive outcome for New Zealanders.*" nzoom is an award winning Internet site and has been experiencing recent growth of over 230%, while SKY has 476,210 subscribers of which over 64% have the digital satellite service.

Comment: What is missing here is coverage. The SKY "channel 25" distribution should have been done in a free to air (FTA) format to make it possible for non-subscribers to participate. The nzoom web coverage is creative but only of use where web users have access to high speed connections (see CTD for February 8, page 2). TVNZ could have also added the conference coverage to their already free to air Optus B1 experimental service had they really been serious about making a "contribution" to the national policy making interest. This service is functioning 24 hours daily and adding a third channel (to TV One and TV2) would have been a minor technical challenge than ensured truly national coverage without forcing users to be Sky subscribers. Sadly, both Sky and TVNZ dropped the ball at the goal line on this one.

Sky Posts six month results. In the six months ended 31 December 2001 SKY TV of New Zealand narrowed its net loss to $13.2 million from $19.6 million in the comparable period. This is an improvement of $6.4 million. Earnings before interest, tax, depreciation and amortisation was up 43.5% from $36.3 million to $52.1 million over the comparable period last year.

Highlights for the six month period included strong subscriber growth, new programming initiatives and continued development of interactive services. SKY also entered into carriage agreements with TVNZ and TelstraClear and in October SKY raised $111 million through a successful Capital Notes issue. At 31 December 2001, Sky's subscriber base reached an all time high of 442,822, a gain of more than 12,000 for the six month period. The breakdown between digital and analogue subscribers is 300,252 (68%) and 140,622 (32%) respectively. Churn, a measure of subscribers who disconnect their service, set a record low of 21.8%. The previous year's was 22.9%. Net churn, calculated by removing subscribers that reconnect has also fallen to 14.4% compared to 17.1% in the prior year.

Pay-per-view continues to be the flagship of our interactive services with revenue of $4.8 million for the six month period. SKY commenced the download of Open TV, Sky's interactive television operating system. Work is still ongoing to resolve some outstanding software issues. Regardless of these problems, digital subscribers now have access to a new interactive program guide, weather and games, which has been well received. Over six thousand customers have signed on to the interactive games to date. In addition to the interactive services, TV1 and TV2, J2, the Edge, Wolf Radio and 12 new audio channels became available on Sky's digital service during the period, of which 5,000 customers have signed. BBC World commenced from 1 January, 2002 and two new lifestyle channels will become available shortly. Two significant contracts were signed during the period. A carriage agreement with TVNZ which has made TV1 and TV2 available nation-wide via the digital platform. The second agreement allows for SKY to be carried on the TelstraClear cable network. This will add approximately 25,000 subscribers to our total subscriber base when the necessary equipment is installed. Since the results both churn and subscriber growth has continued to show improvement. The subscriber count as of yesterday which would include TelstraClear customers have now reached 476,210 which is an all time high.

Comment: Raising $111 million via $5,000 base value non-secured notes is an important indication of what Sky expects to need for operating funds before they finally turn cash-flow positive. Having said that, Sky's results suggest they could become the first satellite pay-TV provider to actually turn a profit in the world - but not this year. That 5,000 homes agreed to pay the extra monthly fee ($1.95) to receive the new audio channels, and 6,000 signed up for the 1980ish format "elementary" games is an interesting statement about the power of advertising. That TelstraClear will provide 25,000 new Sky subscribers is perhaps an over statement as we understand the Sky channels are to be offered on an optional basis. TelstraClear's present pay cable service client base (largely in Wellington as Christchurch is still not completed) may or may not take the Sky services - certainly they had that option previously by simply not subscribing to TelstraClear and going to Sky directly. Finally, calculating churn based upon people who disconnect and then later reconnect is an interesting exercise in statistics since it hides the real churn factor in effect (1 home in 5 disconnects after initially signing on). Note that parent BSkyB "claims" a churn of 10.4% while DVB-T (terrestrial) UK competitor claims more than 24% churn.

Still - unfinished business. NBR takes Sky's programme guide to task. NBR Personal Investor: Sky makes software firms pay. Monopoly pay television network Sky was "morally reprehensible and commercially stupid" not to communicate with its subscribers about problems with its interactive software, Consumers' Institute executive director David Russell comments. Sky Digital subscribers have been riled by "*rain fade*," an error when the television screen freezes, since the broadcaster secretly downloaded new software last December - and the problem is still not fixed. Sky has defended its decision not to let subscribers know beforehand that the software was being downloaded - as well as its failure to send them information about it once the problems occurred. Sky communications manager Tony O'Brien said the company had not written to subscribers but was broadcasting information to help subscribers.

If subscribers rang Sky they were also given help to unfreeze their screens - the decoder must be unplugged and started again. But Mr Russell said under the Consumer Guarantees Act subscribers may have a case to opt out of Sky contracts and to get refunds of money paid in advance. "*It's morally reprehensible in terms of their relationship with their customers and commercially stupid - once the word gets out it damages the company's reputation and loses them business*," Mr Russell said.

Mr Russell said Sky managed to send out bills regularly so communicating with subscribers should not be a problem. He questioned whether as a monopoly Sky was arrogant and did not feel it needed to keep its subscribers informed.

Sky group head of technical and interactive broadcasting Brian Green said the software providers, Open Television and NDS, were covering the cost of fixing the bugs. That may go some way towards appeasing Sky shareholders who have watched the upgrade fiasco and worried about its effect on the company's cash flow. A team of 27 engineers, some flown in from overseas, has been working on the problems which have infuriated scores of Sky subscribers. A Sky technician, who asked not to be named, said he had dealt with dozens of the rain fade problems among his clients. One irate subscriber complained he was forced to listen to the Australia-New Zealand cricket test on a radio after the screen blacked out at a key moment.

Mr Green said Sky was planning to do a second download of replacement software which he claimed would fix the rain fade problem. The box may also jam at times when there is no rain fade but this was not as common. Mr Green said all but about 12,000 of the boxes allowed the download to be done "in the background" and it was also done in the middle of the night when fewer people were watching - which is why subscribers were not told about it beforehand.

Yet another source is also working on this situation. This from Internet: From telekinesis@xtra.co.nz "I am trying to get Sky digital customers to give me feed back on 'rain fade' affecting their reception. How often for how long, programs missed, what they have done to rectify the problem, what Sky have done, and any other information people may be able to offer. As we are all aware 'rain fade' is a complete load of bullocks. It's loss of signal because of Sky insists on putting up crap LNB's and as soon as a bit of cloud passes by ooppps 'rain fade, unplug your receiver for 5 minutes and she'll be right'.....not! Is this fraud? They are not living up to their part of the contract and mislead all their customers with the rain fade line. I believe I have firm evidence that Sky are well aware of this but still

refuse to do any thing about it. Drop me a e-mail and let me know your thoughts and experiences and I'll let you know mine, and if I can generate enough interest I'll try and get this fixed."

Comment: "*Rainfade*" is a blue screen which the set-top box automatically switches to when the data stream is interrupted or faulty. It was intended as a subscriber alert to problems in the transmission path which under "real" rain fade conditions will typically correct when the rain (which weakens the signal causing the box to quit) goes away. But when there is a data stream fault, as has been the case with the new software, the box is simply confused and as home PCs become confused from time to time, the solution is to "reboot" the set-top box by unplugging it and restarting the sequence. In that act, the set-top box returns not to the last channel viewed but rather the ubiquitous "mosaic" display from which the viewer must then renavigate to the programme channel they were last watching. Sky has variously blamed others for the problem which began in December (CTD December 2001, p. 2).

Variable Sky install pricing? This Internet commentary. "We just got Sky TV put on as someone in my household wanted it. Can't say I will be watching it except if the cricket or rugby Tests are on. Waste of money - $48 a month, $130 install (rip-off - all they did was plug the decoder in and show us how to use it 45 min job) as we already had the dish on the roof. Otherwise the install was going to cost $249! Those in the UHF areas that Sky broadcasts to can get the same thing for $99!" And, "I keep getting sales calls from Telecom offering our household Sky for $99 install if we also take a package that includes telephone and Internet service. The catch is a long term contract although they did offer to spread the $99 Sky install into 28 months ($112 total). There is no Sky dish on my home."

TVNZ receives technical excellence award. With Television New Zealand retrenching to a shadow of its former self, there remain some bright spots which echo former greatness. Skilled in the live delivery of television sports event and news coverage to destinations around the world, TVNZ Satellite Services has won a Trade New Zealand Export Award. Operating turnover has virtually doubled in the years 1999 to 2001 with an average of 77% in export sales achieved across the period. TVNZ Satellite Services, a member of the Television New Zealand Ltd Group, is an occasional use satellite carriage provider. Its global satellite delivery network reaches from London across both the Indian and Pacific Oceans and spans territories from London, throughout the Middle East and Africa, across Australasia and Asia to North America. Unlike most occasional use satellite service providers, TVNZ Satellite Services background is in television broadcast rather than telecommunications which the company says is a key competitive advantage for the company. The delivery network is built by television broadcast engineers, owned by a television broadcast company and operated by a group of people whose collective knowledge of broadcast television is difficult to match. TVNZ Satellite Services customer list reads like a who-who of sports rights and broadcast television industry players, including BSkyB (UK), the BBC, Fox Sports International, CNNI, ESPN Star Sports, CNBC Asia, Nine Network and WoWow (Japan).

The satellite services business began to develop in the late 1980s after TVNZ became a State Owned Enterprise. The broadcaster built its own earth station (located on the roof of the TVNZ television centre in downtown Auckland) and secured satellite capacity so that it could cost-effectively deliver its own live news and sports material. It started offering excess satellite capacity to other broadcasters, and the multi-million dollar business has grown from there. Their revenue growth rate has been very good in the last three years and is on target to increase by a further 11% this year, 72% of which will comprise export sales. With new technology developments, network expansion and TVNZ Satellite Services position as one of a very few organisations that is a television broadcast operator as well as a satellite carrier, the future looks very secure and promising. South East Asia currently generates 40% of TVNZ Satellite Service export earnings, Europe 30% and the balance to the Middle East, Africa, North Asia, the Americas, Australia and the Pacific. The business has 26 staff, many of which are multi-lingual with international work experience. Three people are stationed permanently overseas in Bangkok, Sydney and Shanghai.

Australia's "sensitivity" over failure of DVB-T continues. A year after the introduction of digital TV, only about 12,500 set-top encoder boxes have been sold and none of the major consumer electronics manufacturers has entered the market. Over the same period an estimated 28,000 wide-screen TVs have been sold, mostly for watching DVDs. But despite the slow uptake of the new medium, ABC's head of digital TV, Ian Carroll, is still cautiously optimistic, claiming ABCKids, Australia's first digital channel, had already helped bring pre-school and primary school viewers back

to the network. "*One in three kids had been lost over the last five years* [to kids pay TV channels]," said Mr Carroll, "*but in the last 12 months they've been coming back.*" Children represent 23 per cent of ABC viewers. Together with Fly, a second digital channel aimed at teenagers, the ABC claims to have reached an audience of 750,000 digital viewers. But with the low numbers of set-top boxes, selling for $600 to $800, access is almost totally limited to pay TV subscribers.

"[Fly] *is being made by young producers who shoot with digital video cameras and edit with desktop packages*," said Mr Carroll. "*It's done on the cheap, but is creating a new generation of program makers for the ABC. It's an incubator for new ideas.*" Judi Stack, chair of the Federation of Australian Commercial Television Stations (FACTS), which represents Seven, Nine and Ten, told a broadcast TV conference that digital TV is on track. About 70 per cent of the population can now receive digital TV, assuming they have a set-top box, with commercial networks having invested over $1billion in digital programming. In a move to overcome the set-top box bottleneck, the Minister for Communications, Richard Alston, recently supported the idea of a hybrid box that would work with both pay TV and digital free-to-air services. But Ms Stack said there was a "*risk of allowing the tail to wag the dog*". "*The choice shouldn't be left to pay TV, with free-to-air networks expected to follow along*," she said. "We view the set top box as the portal into a whole range of new services. We won't accept pay TV operators having control over our access," she said.

Comment: Senator Alston, not the first time, has flawed thinking. A "hybrid set-top box" that provides access to satellite or cable delivered pay-TV plus DVB-T would be a hopelessly complicated (read expensive!) concoction. DVB-T uses a specific to terrestrial digital format (COFDM) while DVB-S uses a much simpler digital format. It is not quite the same as providing an AM plus FM receiver in one shell; more like designing a microwave oven into a refrigerator. Now add the complication of several incompatible conditional access regimes and you have a microwave oven incorporated into a refrigerator run by a V8 engine. Alston continues to duck the obvious - DVB-T boxes are not selling because Australian rules written to protect the existing three commercial networks ban the transmission of alternate programming channels using DVB-T. Viewers do not watch images for their quality but rather for their content. If they already have the content, they see no reason to spend money to receive the same content a second time - even if it is a better quality image. Loosen the controls on new programming and DVB-T sales will skyrocket.

UK DVB-T continues to fail. ITV Digital announced that it was to shed 600 posts - about 25 percent of the total workforce at its peak, although they did add, almost all the job losses would be voluntary. Despite an increase in subscriber take up, ITV Digital is still lagging far behind market leader BSkyB, whose net digital subscribers rose to 5.7 million at the end of December. Churn, or cancellation rate, was 24.9 percent for the period, up from 23.1 percent in the previous period compared with its aim to get the rate down to 20 percent by the end of next year. BSkyB said last week its churn rate was stable at 10.4 percent. "*The statistics today indicate a restructuring or change to the business model is long overdue*," said Kingsley Wilson, media analyst at investment bank Investec Henderson Crosthwaite, who rates both parent companies 'buy'. Last year, there had been widespread speculation the parent companies would close the cash-draining business in the face of a slump in advertising revenues, selling the subscribers to its rival pay TV operators such as BSkyB Plc. However, ITV Digital Chief Executive Stuart Prebble had in October dismissed a sale of a business that aims to break even by 2004.

And "rationalisation" of Australia's pay-TV industry seems as remote as ever. The fact Telstra owns the local loop and is a major shareholder in Foxtel poses potential regulatory challenges. That was the key message presented by Communications Minister, Senator Richard Alston, to a pay television conference. Senator Alston told the Australian Subscription Television and Radio Association (ASTRA) annual conference, the motivation for Telstra and Optus entering the pay television business is not purely about attracting subscribers, "*it is much more about leveraging the commercial value of those pay TV subscribers by offering bundled broadband and telephony services.*" Granted, the revelation is hardly revolutionary, but the presentation provides an insight into the government's thinking on pay television regulation.

"*As such,*" Alston continued, "*Telstra's involvement in Foxtel has always, in large part been about defending its telecommunications market share (which is entirely natural) while Optus' involvement in Optus Vision similarly has been about using pay TV infrastructure to provide other*

telecommunications and data services in competition to Telstra." In that regard, Telstra's hybrid incarnation as a provider of public services, the traditional 'last mile' copper telco infrastructure, and their private ventures including the 50% share holding in Foxtel, poses potential regulatory challenges. For example, "*if Telstra were to have effective control of the 'last mile' in terms of copper, cable and satellite, this could significantly reduce the possibility of facilities based competition in voice, data and pay TV.*"

Owen Hughes, convergent media specialist with Howorth Communications adds, "*bundling does seem to have worked for Optus because consumers are offered a simple proposition - pay TV, telephony and broadband Internet access provided by one company on a single bill - and they own the pipes that provide these bundled services. The situation is complicated by the fact that Foxtel wants a guaranteed period of exclusive access to the Telstra system in exchange for spending $AU500 million on digitising the network.*" He disagrees with the suggestion Optus would be provided with an unfair advantage if the government made moves to provide open access to a digitised Foxtel and insist on regulatory structures limiting Telstra in the pay television market, as hinted at in the speech. "If you want to play devil's advocate," he explains, "*Telstra has had an unfair advantage using a publicly-funded network to run the privately-owned pay TV operation it has 50 percent ownership in. At the end of the day, what consumers care about is getting services delivered in a timely, efficient manner and at the lowest cost possible. Judging by the rates of broadband and pay TV penetration in Australia - the public don't feel this is happening. Optus has invested heavily in its network to be able to offer bundled services that meet these criteria. To play devil's advocate again - shouldn't Telstra be doing the same thing and let the market decide?"* Hughes is the author of a recent report, Pay TV in Asia Pacific: Mapping the Road Ahead, commissioned by Bloomberg Television Asia Pacific and published by Howorth Communications. The report updates regulatory and consumer developments in Australia and 12 other key cable and satellite TV markets in the Asia Pacific. Following discussion of Austar's financial and structural woes, Hughes details the leader in the report's analysis of Australian markets. "*Pay TV market leader Foxtel and its three owners, Telstra (50 per cent) and News Corporation and PBL (25 per cent each) remain undecided about what to do with the system. Upgrading it through digitisation comes with a $US250 million price tag that the partners in an often-uneasy alliance do not wish to make after a court ruling that opens it to competitors. Alston has suggested that the government could give Foxtel an access holiday from its rivals if the owners undertake an upgrade, although this would be certain to face challenges from other players.*"

In that regard, Senator Alston's speech provides an insight into the government's opinion on consolidation in the pay television market and the speculated merger of Austar with either Foxtel or CWO. " *[A]ny rationalisation or consolidation in the pay TV industry in Australia should not reduce the potential for facilities based competition, including on different platforms, both in terms of pay TV and in other related telecommunications markets. Any regulatory consideration of potential alliances or mergers in the pay TV sector must also take into account their competitive impact in the broadband and telephony markets. Whilst some may argue that pay TV has certain monopoly characteristics in a market the size of Australia, it is not valid to use this argument to justify restricting facilities based competition in other markets." The telephony argument was the key impediment to a proposed Australis / Foxtel merger only a few years ago. Senator Alston continued, "in Australia, one of the traditional impediments to greater competition in telecommunications has been the lack of competing infrastructure in the last mile to the customer's home or workplace. Pay TV cable and satellite platforms and DSL provide a major opportunity to overcome this problem. Additionally, pay TV gives providers the foot-in-the-door that they need to offer customers a wider array of bundled services that also encompass telephony and broadband.*"

Guy Cranswick, senior analyst GartnerIG2, agrees there appears to be an inherent contradiction in Alston's comments, expressing concern about Telstra's position on one hand, while acknowledging digitisation is a key driver of digital television and broadband. "*The position of Telstra and the government's policy to encourage competitive markets is destined to raise paradoxes,*" he says. "*Pragmatic realities and wishful thoughts about markets cannot remain in tune.*" Theoretically a digitised Foxtel "*could deliver a fillip to Optus,*" Cranswick adds, "*but there is a long way to go in drafting regulations for what is deemed appropriate for consumers and companies at that time.*"

One comment that emerged repeatedly at ASTRA's annual convention, Hughes contributes, "*was Australia is a small market and there are limits to how much competition the market can handle. No matter how much open access the government mandates, the cost of providing services over the vast Australian land mass - sourcing content, setting up call centres, engineering teams, office space, advertising and marketing personnel etc. and the chance of getting a meaningful return on investment is always going to limit the number of players. But shouldn't we have a level playing field and let the market decide?*"

In light of Austar's moves to reduce their Internet offerings, Cranswick concedes Optus and Telstra are the only two companies able to roll out a successful bundling strategy, creating an artificial duopoly in the pay television market. "*It is unrealistic to hope for a number of competitors in this industry as entry and capital costs are high and returns must be guaranteed by market share*," he concludes.

Another key issue detailed in Senator Alston's speech was the potential digitisation of Foxtel. "*Pay TV is equipped with natural advantages in the transition to digital and consequently has the capacity to provide a significant competitive alternative to digital free-to-air services. The capacity afforded by broadband networks, the scope for interactivity, the ability to provide bundled services, together with a fairly stable subscriber base, give pay TV operators the opportunity to trial new and innovative services and to capture emerging new revenue streams.*"

Howorth's report also tackles the issue of interlocking regulatory, technological and content structures under the banner of convergence. However, "*the expectations at the start of 2001 for the roll out of convergent technologies under which Asian homes would seamlessly switch from TV, the Internet, telephony and other forms of communication have not been met.*" Deteriorating economic conditions is one factor, but a lack of suitable infrastructure and costs of integration are also key impediments. Australia's broadband expansion has barely progressed in 2001, Hughes notes in the report, given the Foxtel shareholders' reluctance to digitise and Austar's financial position. Although Optus has announced the extension of its interactive trial, it is not saying when it will go fully commercial (Coop's note: See following story). Regulators have also closely watched convergent trends with several Asia Pacific governments last year taking steps to simplify the way they regulate what has become the convergent media sector in their country. "*The imperative at the moment is to look where there is overlapping and ill-defined responsibilities and rationalise these into agencies with staff who have specialist knowledge*," Hughes explains. "*For example, Hong Kong TV used to be run by a government body that also looked after sports and the arts. Now TV is run by something called the Information Technology & Broadcasting Bureau.*" He believes, "*Australia is further down that road than most of its Asia Pacific counterparts in terms of having highly-specialised government agencies to handle policy creation and regulation - but this model could well be outdated once convergence muddies the waters about where broadcast TV, pay TV, radio, streaming media, telephony, video on demand, near video on demand, the Internet, VOIP and satellite-delivered broadband services start and end!" On the issue of Foxtel's digitisation, Hughes notes, "the cost of accessing broadband for consumers has to come down and that means more competition is needed. The logical way of doing that is to set up a mandatory access regime to existing networks to allow newcomers to have a market presence. Each player in the Australian market has a sackful of often-contradictory qualifications and conditions they would want to have met before this happened, but essentially the answer is a simple one.*"

Optus iTV success could be a bridge builder for eventual rationalisation. Optus consumer and multimedia marketing director Scott Lorson told a digital media conference in Sydney that it will make its target for interactive TV take-up of 3000 subscribers by the end of March, with more than 2000 paying customers since the commercial trial launched in December. Mr Lawson said demand had been more than double the level expected, and the installation team was "working around the clock." "*We have pulled marketing we planned for February*," Mr Lorson said, adding that bad weather was the only factor likely to prevent Optus from reaching its target. However the company remained coy about a full commercial launch. "*A decision hasn't been made yet*," an Optus spokeswoman said. "*We might find we need to do the trial for a little longer.*" Optus originally commenced its iTV trial for about 300 people, mostly Optus staff, in the middle of last year. The digital iTV enhancements to its pay television product includes offers "*near-video-on-demand*" (NVOD), an electronic program guide

(EPG), games, e-mail, and other services such as banking and retail purchases. The service costs about $15 on top of the Optus Vision pay television service. The installation price is currently offered for about $200. The company is continuing to expand the services offered on the trial, with two new announcements this week alone: a new content partnership with share trader Sanford, and the development of a new type of service. Dubbed "super channels", they will combine several video streams into one channel with text information and digital radio in response to use patterns by triallists. Interactive manager Liz Norris said the technology had not been developed anywhere else in the world and it was expected to be made available within four to six weeks. The NVOD service - which allows subscribers to choose a movie to watch and the start time at 15-minute interval - was used by almost all subscribers on a weekly basis. This was not surprising given that it has been available for free, but Mr Lorson said Optus believed the offer was so compelling that it would continue to be popular when they began to charge about $7 or $8 per movie from May 1.

Austar squeaks by the bankers - will have a new opportunity to succeed. The following three reports offer slightly different perspectives to the long under siege number one (in customer size) satellite pay-TV provider for Australia.

Austar back in picture. Banks have reached an in-principle agreement to extend a $400 million rollover and debt facility to Austar, saving the regional pay TV group from oblivion. Austar has been in breach of financial covenants after failing to negotiate the rollover by December 31, but the banks have now allowed Austar to trade out of its difficulties. The news, which was announced after the close of trade, should boost Austar's beleaguered share price. The renegotiation, which has taken more than a year of intense talks, was aided by Austar's parent company, UnitedGlobalCom, placing $30 million in a contingency account for Austar. "*It will sit in an account and be available if there's a significant change of circumstance, but the intention is that it's a back up rather than something we actually draw on*," Austar spokesman Bruce Meagher said. The move caps a dramatic year for Austar. It watched subscriber growth in its regional pay TV market slow and was forced into a restructure that prompted the closure of its metropolitan microwave network and its Internet backbone. That gave Austar $90 million in annual savings as it sought to appease its banks. The company, which had $103.2 million in cash at the end of December, says it will need no extra funds to execute its business plan. The bank deal also places Austar on a firmer footing in the event of any rationalisation within the pay TV sector. "*While we're still interested in opportunities, we have a distinct option of maintaining this business as a stand-alone operation*," Mr Meagher said. Austar chief executive John Porter said the new facility need not be repaid until 2006. "*With this issue close to finalisation, Austar can focus squarely on executing its key operational priorities, managing growth, while closely controlling costs*," he said. He said the repayment schedule matched Austar's business plan, although Austar is expected to be paying higher interest costs.

Austar's refinancing had been delayed by the failure of the Commonwealth Bank to agree to the new plan, but last week Mr Porter told reporters that 94 per cent of its banking syndicate had agreed to the deal. The bank syndicate is led by Toronto Dominion, JP Morgan and Citibank, but comprised of 15 lenders. CBA's exposure is believed to total less than $30 million.

Mr Meagher reaffirmed Austar's plan to be positive at the earnings before interest, tax and depreciation (EBITDA) line this year and to have positive free cash flow by 2004. Its 2001 results, due to be released during March, are expected to see Austar report an EBITDA loss of $87 million.

Bankers give Austar a second chance. Struggling regional pay TV operator Austar has been given a new lease of life after its bankers finally agreed to refinance its $400 million loan and its US parent UnitedGlobalCom put up a $30 million guarantee. Almost two months after it was due to repay the $400 million, Austar announced yesterday that it had reached in-principle agreement with its 15-member banking syndicate to refinance the debt. As part of the new deal, Austar's 81 per cent shareholder, UnitedGlobalCom (UGC), has provided the company with a $30 million "contingency account". The loan agreement depends on documents being finalised. Austar now has until 2006 to repay the debt, which originally fell due on January 1 this year. If Austar had failed to renegotiate the terms, it would have had to repay the full $400 million before the end of March.

Losing hundreds of millions of dollars, Austar had just $103 million cash left in the bank at the end of December. Austar chief executive John Porter said UGC's willingness to demonstrate its continuing commitment to the company was of "vital importance". An Austar spokesman said UGC's $30 million

gave the company "a bit of wiggle room if we need it". Austar said it did not need more money to meet its business plan. It expects to be in the black at the earnings before interest, tax, depreciation and amortisation line this year before becoming operating cash flow positive by 2004. "*With this issue close to finalisation, Austar can focus squarely on executing its key operational priorities - managing growth while closely controlling costs*," Mr Porter said. The move means Austar is no longer as vulnerable to predatory moves by its metropolitan pay TV counterparts, Optus and Foxtel. "*This puts them in a stronger bargaining position*," one industry observer said. Austar has been in discussions with Optus since late last year about a possible alliance which would enable both companies to slash operating costs and possibly negotiate more favourable US programming contracts. The country's largest pay TV provider, Foxtel, is also interested in Austar, but competition issues could preclude a merger. This made acquiring Austar's assets under a liquidation scenario a much more attractive option for Foxtel, which is owned by News Ltd, PBL and Telstra. Austar must now focus on reversing falling subscriptions and growing revenue.

Even with a pay TV monopoly in regional Australia, Austar faces a 2001 full year loss of at least $343million as a result of costly programming deals written in US dollars and subscriber growth which has stalled at 430,000 customers. Austar embarked on a major restructure late last year in a bid to improve its financial position and sustain investor support. It sacked a third of its 1200 staff, closed many regional offices and outsourced a number of business operations. Shares, worth $9.65 at the height of the tech boom, sank to a record low of 15c in September amid solvency concerns.

Bank backing puts Austar back in picture. Austar now has more clout in talks with Optus on a pay TV merger. Austar's bankers have thrown the struggling regional pay television group a much-needed lifeline and agreed to refinance a $400 million debt facility after months of tense negotiations. The satellite broadcaster revealed it had secured an in-principle agreement with its banking syndicate to restructure the loan, nearly two months after missing the deadline to roll over the debt. One analyst said this placed Austar in a much stronger position during discussions with Optus over a possible merger with its pay TV operations. "*To the extent that Optus thought Austar would not be able to refinance its debt and put it in a stronger bargaining position ... that is now not available to Optus*," he said. Parent UnitedGlobalCom has tipped in $30 million as a contingency to appease the banks and help finance Austar's business plans. This will also ensure it does not require extra funds. Under the terms of the restructured loan, the repayment date has been pushed back from the beginning to the end of 2006. The payment schedule has also been adjusted to give Austar more financial flexibility and access to working capital over the next couple years. "*The payment reschedule has been rejigged, so there is a bit of relief up front*," said spokesman Bruce Meagher.

Mr Meagher said talks with the 15-member syndicate, led by Toronto Dominion, J.P.Morgan and Citibank, had stalled because the banks were now exercising a lot more caution. "*In the current environment, everyone takes a conservative view on their investments*," he said. "*While it was frustrating, given the way the global market is headed, it's understandable*." Commonwealth Bank is believed to have been the most reluctant member of the consortium, with an exposure of about $30 million. The bank has traditionally been linked with Rupert Murdoch's News Corporation, which has a 25 per cent holding in Austar rival Foxtel. The bank's resistance meant that Austar breached a crucial loan covenant relating to earnings performance. This gave its lenders the right to demand immediate repayment of the debt this quarter, which would have sent the company into financial oblivion. Austar has been struggling under a mountain of debt and slow subscriber growth, and analysts believe it will reveal a full-year loss of around $375 million on March 16. This is expected to include substantial write-downs on its spectrum licences and goodwill. It had about $103.2 million in the bank as at December 31 but has significantly reduced its cash-burn rate. The pay TV group improved its financial position last November when it cut 400 jobs to help save $90 million a year.

PanAmSat 'the elder' is ready for DISH take-over of DirecTV. PanAmSat raises $2.05 bln, reaffirms 2002 outlook Satellite company PanAmSat Corp. (SPOT) reports it has raised $2.05 billion in debt and long-term notes and reaffirmed its 2002 outlook on earnings, revenue and operating cash flow margin. PanAmSat, a unit of Hughes Electronics Corp. (GMH), said the major financing includes $1.25 billion in bank debt, including a revolving credit facility, and $800 million in 10-year senior notes. "*This financing replaces the entire debt to Hughes of (US)$1.725 billion that was scheduled to mature in 2003 with long-term bank debt and senior notes distributed in the capital markets*," Joseph

Wright, PanAmSat president and chief executive, said in a statement. "*The new revolving credit facility, together with our cash position and cash generated by our operations will provide us with liquidity to pursue growth opportunities*," he said. The company continues to expect 2002 revenues of between $790 million and $825 million, operating cash flow margin of more than 70 percent and earnings per share of 35 cents to 45 cents. Separately, Hughes said PanAmSat will use part of the money raised to repay the loan that Hughes extended to PanAmSat in May 1997. The payment will allow Hughes to access a credit line arranged with General Motors Acceptance Corp. that provides $500 million of new financing. Hughes is a unit of the world's largest auto maker General Motors Corp. "*We are very pleased with the successful completion of these transactions, particularly PanAmSat's high-yield bond offering for which demand was far greater than anticipated*," said Jack Shaw, Hughes' president and chief executive. "*With this financing, we have put in place a solid capital structure at Hughes that is expected to see us through the completion of the EchoStar (DISH) merger.*" Hughes also said it completed a restructuring of its existing credit facilities. Its $750 million revolving credit facility has been amended and increased in size, allowing Hughes to consolidate and extend the maturity of certain credit facilities associated with DirecTV Latin America businesses. Its new secured credit facility's capacity is $1.2 billion and is expected to be supplemented with an institutional term loan.

Comment: The essence here is that with DISH TV taking over DirecTV, money owed within the Hughes/General Motors/DirecTV empire had to be balanced before the merger.

MIH (Irdeto) secures sales in China expanding reach of its conditional access system. MIH Ltd., the Subscriber Platforms and supporting Technologies Group, Friday announced that its subsidiary Irdeto Access has been selected by CSTTC, China's major central satellite distribution platform, to provide its latest content protection solution, Irdeto (pi)sys, to secure four of the CCTV channels in the People's Republic of China. CSTTC (China Satellite Television Transmission Center) will broadcast the CCTV signals via C-Band. This important milestone follows closely on the China State Administration of Radio, Film and Television announcement in February that Irdeto Access has been approved as one of the only two foreign conditional access suppliers to the Chinese market. MIH has a holding in QQ, the most pervasive instant-messaging platform in China. Supporting its subscriber platforms, MIH's technologies, including OpenTV, Irdeto Access and Mindport, provide interactive, encryption, customer care and billing and other related services to channel and platform operators world-wide. OpenTV builds a complete software and infrastructure platform that enables digital interactive television and brings on-demand content to other digital communications devices. OpenTV's software has been shipped with or installed in more than 23.5 million digital set-top boxes world-wide and has been selected by 50 digital cable, satellite and terrestrial communications network in over 50 countries.

Comment: There are two bits of importance here. (1) That CCTV will be encrypting some of its C-band (overseas) satellite feeds which to date have been free to air only, and, (2) that China has elected to go outside the country for an encryption programme. China has long maintained its ability to create a unique-to-China encryption system and several have been tested and demonstrated. The logic is that CCTV sees foreign (export) earnings for their CCTV1, CCTV4, CCTV9 services currently being sold overseas, and rather than allowing their own internal encryption system to enter the "western world" where hackers would possibly bust it, the Chinese have elected an acceptable "international platform" to protect their export television products. CCTV9, mostly in English, has been an especially popular service with cable and pay-TV operators world-wide - who have accessed it without any formalities of contract or payment to date. The next shoe to drop will revolve around when and where CCTV implements the Irdeto system in their export television packaging.

Germany's public and international broadcasters join forces. Deutsche Welle, the German overseas public broadcaster, is joining a partnership with major public networks to create a uniquely-German channel for export via satellite to pay-TV viewers located around the world. Australia figures into the eventual expansion plans with 150,000 "German speaking residents" identified by their market study. The report:

GERMAN TV is a leap in quality for the media presentation of Germany abroad and promises to provide a broad range of perspectives for the future. The director-generals officially launched the joint ARD, ZDF and DW project in a festive act in the capital attended by the German Minister of State for

Culture, Prof. Dr. Julian Nida-Rümelin. GERMAN TV is a full, German-language television network offering a wide variety of "best-of" programming supplied by Germany's public broadcasting institutions. ARD and ZDF are each providing 40 percent of the programming. DW, which holds the broadcasting rights for GERMAN TV, will supply the remaining 20 percent. GERMAN TV has been on the air with a test program in its US entry market since February 1st and will begin the regular, full program on April 8th. GERMAN TV will become a subscriber-only, PAY-TV network in May. "*See What Germany Sees*" is the motto for GERMAN TV. Formats, like the classic German television news programs Tagesschau and heute journal, the DW-TV news program Journal, the talks shows of Sabine Christiansen and Johannes B. Kerner, Berlin Mitte and Boulevard Bio, fiction with the ARD detective series Tatort and ZDF's television movie. "*This is quality television made in Germany and that is what GERMAN TV is all about*," said Mr. Bettermann, "*and that is why, even in the world's toughest media market, in the USA, it will be a success.*" As an added highlight to the programming of GERMAN TV, the DW director-general underscored the up-to-date sports reporting from the German soccer league, the Bundesliga. Besides a regular 45-minute recap of the latest games shortly after they are played, there will also be an extra "pay per view" service for watching matches live in full-length transmissions. Viewer potential in the United States, according to a market survey conducted for DW, is estimated at one million households in which at least one person speaks German. The study also revealed that there are about 2.5 million households in which at least one person understands German. With this solid foundation, the director-generals agreed, winning over 70,000 subscribers within seven years is a realistic goal. Subscribers to GERMAN TV will also receive the German-language programs of DW RADIO in stereo quality. GERMAN TV programs will be compiled daily in the DW-TV studios in Berlin from material provided by ARD, ZDF and DW. The programs, which will be produced in digital quality, will then be transmitted via fiber-optic cable to the satellite up-link station located in London. From there, they will be transmitted along with DW-TV programming to North, South and Central America via the PanAm satellite, PAS-9. This transmission path will allow for easier expansion into the Latin American market at a later date. The "break-even" point for the program is 70,000 subscribers. The participating broadcasters estimate that this target could feasibly be reached within seven years, at which time GERMAN TV could finance itself totally through subscriber fees, advertising and sponsoring income. Whether or not GERMAN TV will be expanded into other markets as PAY-TV or Free-TV will depend on the market conditions in those respective regions. bA survey conducted by the DW Sales and Distribution Department estimates viewer potential for GERMAN TV during the initial phase in targeted markets at: (1) Canada: 450,000 German speakers; (2) Latin America: 1.7 million; (3) Australia: Germans, German speakers, 150,000 ethnic Germans.

How technology is threatening major TV networks. Networks sue over new video recorder (ReplayTV 4000 skips commercials). If television network executives are steamed enough to sue, there must be something exquisitely subversive about the latest in digital video recorders. ABC, CBS and NBC want the ReplayTV 4000 off the market and have taken its parent company SonicBlue Inc. to court, contending that the slim silver box violates their copyrights by letting users share shows over the Internet. But the angst in network executive suites is really more about something else: These devices allow viewers to watch what they want when they want--and skip commercials. And that means mayhem for the networks' business model.

I asked a guy on the train who works in television if he owned a TiVo or a ReplayTV. "*I've got enough distractions,*" he said. That's missing the point. These devices don't distract. They distil, filter and free up time. They're like personal TV secretaries. And this new one networks, too. Unlike its predecessors or its newest TiVo competitor, the RTV4000 is Internet-ready--and SonicBlue is already shipping them by the thousands. I connected two units to our home Ethernet network. I recorded some shows on the den unit and watched one across the network in my office while the originating machine also recorded a second show to its hard drive. But the piece de resistance in the RTV4000 is the Commercial Advance feature. If it sounds like a great leap forward, that's because it is. Multiple bounds, in fact. The RTV4000 can be programmed to skip all commercials by default. Or you can do it manually with the remote. Careful not to bypass actual programming, it zaps most, but not all, advertising segments. SonicBlue also sells Go-Video dual-deck VCRs that will strip commercials from a tape that you dub. So there's a strategy here.

Installation of the RTV4000 is a cinch, provided your home network, like mine, is behind a secure router and has a high-speed dedicated Internet connection (DSL, cable, T1 or ISDN). If your network has dynamic Internet addressing, good. If you have to manually enter an Internet address it's more complicated. But the set-up routine is still easy enough. The digital recorder does most of the work. You give SonicBlue your ZIP code and it goes on the Internet and finds your cable TV program guide, which is updated daily. Each RTV4000 has a unique identifier, so you can use the Internet to share a show with up to 15 friends who also have units. SonicBlue says the built-in software prevents the transfer of pay-per-view broadcasts and that shows received cannot be forwarded to a third person. To test the RTV4000's Internet capabilities, I successfully swapped shows with SonicBlue.

Transmission speeds will depend on your broadband connection. Over the Internet, I was able to communicate with my RTV4000 in another fashion in a transaction that defined digital cool. I logged on to www.myreplaytv.com, where I had registered my unit and set up a login and username. Then I queued up a show on my RTV4000. The following morning, the device was programmed to record. It had been updated before dawn.

So what's the price for all this convenience? The cheapest model, offering up to 40 hours of recording, costs $699. For 320 hours worth, the price is $1,999. The company says one-third of customers have bought two units. Those folks must have weathered the recession well.

SonicBlue says it intends to release a mass-market model the second half of this year.

Bits and bytes:

A widespread shut down of virtually all Optus B3 services occurred in mid-evening February 9, turning off pay and public TV over Australia as well as feeds into New Zealand (through Sky Network TV and TelstraClear). The explanation: "*It was a large storm that passed through Sydney & over the Belrose area in Sydney's Northern suburbs where Optus' main Earth station is. All B3, B1, PAS8 signals plus others that originate from the Sydney area or the Optus Main Satellite Earth station, were lost for a period of time due to rain fade & thick cloud, which stopped the signal getting through to the Satellites. The local ABC Terrestrial services went off the air because the transmitters receive their feed signals off the B1 Satellite.*"

India is experimenting with DVB-T. Faced with increasing competition from private TV channels, Doordarshan has launched Digital Terrestrial Transmission (DTT) in Delhi to boost its quality of transmission. DD has started transmission on DTT mode on an experimental basis according to Chief Engineer A S Guin. Guin said the broadcaster had already set up a transmitter in Delhi and was in the process of installing three more transmitters in Kolkata, Chennai and Mumbai. Each transmitter would broadcast up to six channels. The broadcaster has already acquired 25 set up boxes for installing the service in the capital Comment: TVNZ is reported to have supplied technical consultation to the Indians with this project.

ESPN's expensive channel. Disney's cable networks business - of which ESPN is a major component - reported that revenues were up 10 percent, to $3.8 billion for the year ended Sept. 30. The (ESPN) programming fees paid by cable operators - among the highest in the industry - are making the difference, said Paul J. Kim, senior media analyst at Kaufman Bros. in New York. The fees - now $1.50 a subscriber - have been rising at 20 percent a year under long-term contracts with cable operators. Analysts say cable operators aren't happy about the fees, but they still pay them.

Campaign to move Prime TV to FTAs within Sky and TVNZ satellite bouquets. "The newly appointed CEO of Prime NZ is Cameron Murray; Ph: is 64 9 414 0700. I suggest installers contact him and let them know Prime could gain thousands of potential viewers just by switching their Sky signal to FTA mode. This would see them FTA up there with TV1 and TV2 and the best bit as TV3/4 are not there FTA yet it would be TV1 and TV2 they have as FTA competition. I think if they did this TV3 and TV4 would be FTA there within days! You would think a channel wishing to get 10% share of the viewing audience would want to be available to as many people as possible. It wouldn't surprise me if many of these management people had no idea they can be FTA and that there is a market out there for it."

B4U won't do it. (India's) B4U Network has cancelled plans to launch operations in Australia and New Zealand and is instead looking to North Africa as its next area of coverage. After the launch of

operations in Canada in September 2001, B4U was hoping to bring Australia and New Zealand under its ambit as well by December but has cancelled on that for the present because "*it is still far too small a market to launch in the current scenario.*" Comment: As reported in some detail in SatFACTS for February 15th, Indian TV in Australia is beset with rampant piracy. One Indian TV service delivered via the Optus Aurora platform has gone out of business after attracting only 38 subscribers in a 15 month period, but serving "thousands" of unauthorised Irdeto carded viewers who had turned to the grey market for their access.

Remember Iridium? Rupert Murdoch is not Australia's only satellite mogul it seems, with the Mike Boyd-backed Iridium recently adding a further five dishes to its constellation. It has been nearly two years since Motorola's Iridium satellite phone venture came crashing down. However, not many will know that the man who had a large part in saving the satellite constellation from its literal fate was Perth investor Mike Boyd. Boyd's Bareena Holdings kept the satellites in the air by acquiring a stake in the business in the fire sale that followed shortly after Iridium applied for bankruptcy protection. Subsequently Boyd has taken the investment company public via a backdoor listing on the ASX. Quadrant Iridium - as it is now known - owns 18% of Iridium Satellite LLC, as well as a bevy of dormant mining ventures for good measure.

The extra satellites were launched by Boeing on a Delta II launch vehicle from Vandenberg Air Force Base last week. They add both to the constellation's redundancy capabilities and offer increased reliability. Are such signs of positivity to be seen as cunning bravado or simply a case of dead cat bounce? Having seen Motorola burn through $US5 billion on launching and building the network a prospective investor could be forgiven for being just a touch nervous. Nonetheless the syndicate of private investors, which included Bareena Holdings, agreed to pay $US25 million to acquire the remains early last year. Since then Bareena Holdings has made a number of other cash injections that were part of the original financing arrangement. The reason why the first incarnation of Iridium failed was its target market and focus, or some might say lack thereof. Management originally envisaged travelling executives using the satellite phones and paying a premium for the consistent coverage the network offered. Perhaps they should have used the Australia Cricket team in an advertising campaign or two, as the original $US7 per minute phone charges certainly didn't induce a 'jeez that's cheap' response from many. The resurrectors of Iridium took this on board and focused entirely on markets that were underserved or even ignored by the mainstream cellular networks. Users such as those on remote oil rigs and rural cattle stations, shipping companies who need to monitor their trucks and couldn't afford to have coverage blackspots; even the bastion of reality TV - Survivor - is a recent Iridium customer. And not to forget the department of defence in the US Government who is a major client. The problem the satellite phone provider has is that the clock is ticking. Although the stock market crash has left many telecommunications companies looking rather feeble, it has left their suppliers - the Nortels, Lucents and Ciscos - in desperate and dire straits. This means that the cost of technology, whilst normally falling, has plummeted. The proverbial carrot will become even more alluring in years to come and the major mobile phone companies will one day attempt to impede on Iridium's core target markets and it's hard to come up with a compelling reason as to how Iridium will be able to defend against them in the longer term. In financial terms though, the Iridium resurrectors won't need to do much to earn a healthy return on their original investment and perhaps their frugal approach won't incite any moves from mainstream carriers for a while yet.

Our declining year

Coop's Technology Digest will cease publication as a ten-time-per year creation with our August 2002 issue. This is issue 86, the final issue *should* be number 91. Renewal notices included with this issue have been dollar-adjusted to reflect the remaining issues only. No new subscriptions are being accepted at this time.

Our SatFACTS Monthly publication has no immediate plans to cease publication and CTD readers who do not subscribe to SatFACTS are encouraged to do so at this time. (US$75, NZ$70, Au$96)